

IN THE U.S. PATENT AND TRADEMARK OFFICE **10/549327**

In re application of

Vittorio FERRARI, et al.

Conf.

Application No. **NEW NATIONAL PHASE**

Group

Filed September 16, 2005

Examiner

METHOD AND DEVICE FOR DETERMINING THE RESONANT FREQUENCY OF
RESONANT PIEZOELECTRIC SENSORS

INFORMATION DISCLOSURE STATEMENT
(SUBMISSION CONCURRENT WITH THE
FILING OF A NEW PATENT APPLICATION)

Assistant Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

September 16, 2005

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, and in fulfillment of the duty of disclosure under 37 C.F.R. § 1.56, applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications, or other information submitted for consideration by the Office are listed on PTO-1449, attached hereto.

II. COPIES

- ☒ Copies of the U.S. patents or publications are not submitted since the USPTO has waived their submission for applications filed after June 30, 2003.
- ☒ Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.
- ☐ This application is a National Phase of a PCT application. Some or all of the documents listed on the PTO-1449 are not enclosed because they were cited in the International Search Report and copies should have been forwarded from the International Search Authority pursuant to the trilateral agreement between the USPTO, EPO and JPO, or they are U.S. patents or U.S. published applications. If copies are needed, please contact the undersigned.

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III. CONCISE EXPLANATION OF THE RELEVANCE
(check at least one box)a. ☒ **DOCUMENTS IN THE ENGLISH LANGUAGE**

The attached non U.S. patents, non U.S. patent application publications, foreign publications, or other information in the English language do not require a statement of relevancy.

b. ☐ **DOCUMENTS NOT IN THE ENGLISH LANGUAGE**

A concise explanation of the relevance of all patents, publications, or other information listed that is not in the English language is as follows:

c. ☒ **FOREIGN SEARCH REPORT OR ACTION**

An English language version of the search report or action that indicates the degree of relevance found by the foreign office is attached, thereby satisfying the requirement for a concise explanation. See MPEP 609(A)(3).

d. ☐ **OTHER**

The following additional information is provided for the Examiner's consideration.

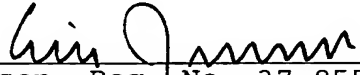
FEES

This Information Disclosure Statement is being filed concurrently with the filing of a new patent application; therefore, no fee is required.

If The Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned.

Respectfully submitted,

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Enclosures: ☒ Form PTO-1449(s)
☒ Documents
☒ Foreign Search Report
☐ Other: _____

INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Attorney Docket No.: 2520-1064	Application No.: NEW NATIONAL PHASE
	Applicant: Vittorio FERRARI, et al. 10/549327	
	Filing Date: September 16, 2005	Group Art Unit:

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing date (if appropriate)
	4,788,466	11/29/1998	Beeler, Theodore L., et al.			
	4,358,742	11/9/1982	Ferriss, Lincoln S.			

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	ARNAU A ET AL: "CIRCUIT FOR CONTINUOUS MOTIONAL SERIES RESONANT FREQUENCY AND MOTIONAL RESISTANCE MONITORING OF QUARTZ CRYSTAL RESONATORS BY PARALLEL CAPACITANCE COMPENSATION" REVIEW OF SCIENTIFIC INSTRUMENTS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 73, no. 7, July 2002 (2002-07), pages 2724-2737, XP001132415 ISSN: 0034-6748 cited in the application page 2730, column 1-page 2733, column 2
	Vittorio A., et al: "Improving the accuracy and operating range of quartz microbalance sensors by a purposely designed oscillator circuit", IEEE TRANSACTIONS ON INSTRUMENTAL AND MEASUREMENT, vol. 50, no. 5 October 2001 (2001-10), pages 1119-1122, XP002291913 cited in the application page 11200, column 2-page 1121, column 1; figures 4,5
	BARNES C: "DEVELOPMENT OF QUARTZ CRYSTAL OSCILLATORS FOR UNDER-LIQUID SENSING" SENSORS AND ACTUATORS A, ELSEVIER SEQUOIA S.A., LAUSANNE, CH vol. A29, no. 1, 1 September 1991 (191-09-01), pages 59-69, XP000324266, ISSN: 0924-4247 page 61, column 2-page 62, column 2

EXAMINER:

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

* English language abstract provided for the Examiner's convenience

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Y&T September 16, 2005